



IFWO

RAW SEQUENCE LISTING

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:40

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw

3 <110> APPLICANT: The Regents of the University of California
 4 Baxter, John D
 5 Fletterick, Robert J
 6 Kushner, Peter J
 8 <120> TITLE OF INVENTION: Nuclear Receptor Ligands and Ligand Binding Domains
 10 <130> FILE REFERENCE: 407J-981114US
 12 <140> CURRENT APPLICATION NUMBER: US 10/827,121
 13 <141> CURRENT FILING DATE: 2004-04-16
 15 <160> NUMBER OF SEQ ID NOS: 16
 17 <170> SOFTWARE: PatentIn version 3.2
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 410
 21 <212> TYPE: PRT
 22 <213> ORGANISM: Rattus sp.
 24 <400> SEQUENCE: 1

| | | | | | | | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 26 | Met | Glu | Gln | Lys | Pro | Ser | Lys | Val | Glu | Cys | Gly | Ser | Asp | Pro | Glu | Glu |
| 27 | 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| 30 | Asn | Ser | Ala | Arg | Ser | Pro | Asp | Gly | Lys | Arg | Lys | Arg | Lys | Asn | Gly | Gln |
| 31 | | | | 20 | | | | | 25 | | | | | 30 | | |
| 34 | Cys | Pro | Leu | Lys | Ser | Ser | Met | Ser | Gly | Tyr | Ile | Pro | Ser | Tyr | Leu | Asp |
| 35 | | | 35 | | | | | 40 | | | | | 45 | | | |
| 38 | Lys | Asp | Glu | Gln | Cys | Val | Val | Cys | Gly | Asp | Lys | Ala | Thr | Gly | Tyr | His |
| 39 | | 50 | | | | | 55 | | | | | 60 | | | | |
| 42 | Tyr | Arg | Cys | Ile | Thr | Cys | Glu | Gly | Cys | Lys | Gly | Phe | Phe | Arg | Arg | Thr |
| 43 | 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| 46 | Ile | Gln | Lys | Asn | Leu | His | Pro | Thr | Tyr | Ser | Cys | Lys | Tyr | Asp | Ser | Cys |
| 47 | | | | 85 | | | | | 90 | | | | | 95 | | |
| 50 | Cys | Val | Ile | Asp | Lys | Ile | Thr | Arg | Asn | Gln | Cys | Gln | Leu | Cys | Arg | Phe |
| 51 | | | | 100 | | | | | 105 | | | | | 110 | | |
| 54 | Lys | Lys | Cys | Ile | Ala | Val | Gly | Met | Ala | Met | Asp | Leu | Val | Leu | Asp | Asp |
| 55 | | | 115 | | | | | 120 | | | | | 125 | | | |
| 58 | Ser | Lys | Arg | Val | Ala | Lys | Arg | Lys | Leu | Ile | Glu | Gln | Asn | Arg | Glu | Arg |
| 59 | | 130 | | | | | 135 | | | | | 140 | | | | |
| 62 | Arg | Arg | Lys | Glu | Glu | Met | Ile | Arg | Ser | Leu | Gln | Arg | Pro | Glu | Pro | |
| 63 | 145 | | | | 150 | | | | | 155 | | | | 160 | | |
| 66 | Thr | Pro | Glu | Glu | Trp | Asp | Leu | Ile | His | Val | Ala | Thr | Glu | Ala | His | Arg |
| 67 | | | | 165 | | | | | 170 | | | | | 175 | | |
| 70 | Ser | Thr | Asn | Ala | Gln | Gly | Ser | His | Trp | Lys | Gln | Arg | Arg | Lys | Phe | Leu |
| 71 | | | | 180 | | | | 185 | | | | | | 190 | | |
| 74 | Pro | Asp | Asp | Ile | Gly | Gln | Ser | Pro | Ile | Val | Ser | Met | Pro | Asp | Gly | Asp |
| 75 | | 195 | | | | | 200 | | | | | | 205 | | | |
| 78 | Lys | Val | Asp | Leu | Glu | Ala | Phe | Ser | Glu | Phe | Thr | Lys | Ile | Ile | Thr | Pro |
| 79 | | 210 | | | | | 215 | | | | | | 220 | | | |

ENTERED

RAW SEQUENCE LISTING

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:40

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw

```

82 Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met Phe Ser
83 225                230                235                240
86 Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys Cys Met
87                245                250                255
90 Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp Pro Glu Ser Asp
91                260                265                270
94 Thr Leu Thr Leu Ser Gly Glu Met Thr Val Lys Arg Lys Gln Leu Lys
95                275                280                285
98 Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe Glu Leu Gly Lys
99                290                295                300
102 Ser Leu Ser Ala Phe Asn Leu Asp Asp Thr Glu Val Ala Leu Leu Gln
103 305                310                315                320
106 Ala Val Leu Leu Met Ser Thr Asp Arg Ser Gly Leu Leu Cys Val Asp
107                325                330                335
110 Lys Ile Glu Lys Ser Gln Glu Ala Tyr Leu Leu Ala Phe Glu His Tyr
111                340                345                350
114 Val Asn His Arg Lys His Asn Ile Pro His Phe Trp Pro Lys Leu Leu
115                355                360                365
118 Met Lys Val Thr Asp Leu Arg Met Ile Gly Ala Cys His Ala Ser Arg
119                370                375                380
122 Phe Leu His Met Lys Val Glu Cys Pro Thr Glu Leu Phe Pro Pro Leu
123 385                390                395                400
126 Phe Leu Glu Val Phe Glu Asp Gln Glu Val
127                405                410
130 <210> SEQ ID NO: 2
131 <211> LENGTH: 410
132 <212> TYPE: PRT
133 <213> ORGANISM: Homo sapiens
135 <400> SEQUENCE: 2
137 Met Glu Gln Lys Pro Ser Lys Val Glu Cys Gly Ser Asp Pro Glu Glu
138 1                5                10                15
141 Asn Ser Ala Arg Ser Pro Asp Gly Lys Arg Lys Arg Lys Asn Gly Gln
142                20                25                30
145 Cys Ser Leu Lys Thr Ser Met Ser Gly Tyr Ile Pro Ser Tyr Leu Asp
146                35                40                45
149 Lys Asp Glu Gln Cys Val Val Cys Gly Asp Lys Ala Thr Gly Tyr His
150                50                55                60
153 Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Thr
154 65                70                75                80
157 Ile Gln Lys Asn Leu His Pro Thr Tyr Ser Cys Lys Tyr Asp Ser Cys
158                85                90                95
161 Cys Val Ile Asp Lys Ile Thr Arg Asn Gln Cys Gln Leu Cys Arg Phe
162                100                105                110
165 Lys Lys Cys Ile Ala Val Gly Met Ala Met Asp Leu Val Leu Asp Asp
166                115                120                125
169 Ser Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg
170                130                135                140
173 Arg Arg Lys Glu Glu Met Ile Arg Ser Leu Gln Gln Arg Pro Glu Pro
174 145                150                155                160

```

RAW SEQUENCE LISTING

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:40

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw

```

177 Thr Pro Glu Glu Trp Asp Leu Ile His Ile Ala Thr Glu Ala His Arg
178          165          170          175
181 Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys Phe Leu
182          180          185          190
185 Pro Asp Asp Ile Gly Gln Ser Pro Ile Val Ser Met Pro Asp Gly Asp
186          195          200          205
189 Lys Val Asp Leu Glu Ala Phe Ser Glu Phe Thr Lys Ile Ile Thr Pro
190          210          215          220
193 Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met Phe Ser
194 225          230          235          240
197 Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys Cys Met
198          245          250          255
201 Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp Pro Glu Ser Asp
202          260          265          270
205 Thr Leu Thr Leu Ser Gly Glu Met Ala Val Lys Arg Glu Gln Leu Lys
206          275          280          285
209 Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe Glu Leu Gly Lys
210          290          295          300
213 Ser Leu Ser Ala Phe Asn Leu Asp Asp Thr Glu Val Ala Leu Leu Gln
214 305          310          315          320
217 Ala Val Leu Leu Met Ser Thr Asp Arg Ser Gly Leu Leu Cys Val Asp
218          325          330          335
221 Lys Ile Glu Lys Ser Gln Glu Ala Tyr Leu Leu Ala Phe Glu His Tyr
222          340          345          350
225 Val Asn His Arg Lys His Asn Ile Pro His Phe Trp Pro Lys Leu Leu
226          355          360          365
229 Met Lys Val Thr Asp Leu Arg Met Ile Gly Ala Cys His Ala Ser Arg
230          370          375          380
233 Phe Leu His Met Lys Val Glu Cys Pro Thr Glu Leu Phe Pro Pro Leu
234 385          390          395          400
237 Phe Leu Glu Val Phe Glu Asp Gln Glu Val
238          405          410
241 <210> SEQ ID NO: 3
242 <211> LENGTH: 461
243 <212> TYPE: PRT
244 <213> ORGANISM: Homo sapiens
246 <400> SEQUENCE: 3
248 Met Thr Pro Asn Ser Met Thr Glu Asn Gly Leu Thr Ala Trp Asp Lys
249 1          5          10          15
252 Pro Lys His Cys Pro Asp Arg Glu His Asp Trp Lys Leu Val Gly Met
253          20          25          30
256 Ser Glu Ala Cys Leu His Arg Lys Ser His Ser Glu Arg Arg Ser Thr
257          35          40          45
260 Leu Lys Asn Glu Gln Ser Ser Pro His Leu Ile Gln Thr Thr Trp Thr
261          50          55          60
264 Ser Ser Ile Phe His Leu Asp His Asp Asp Val Asn Asp Gln Ser Val
265 65          70          75          80
268 Ser Ser Ala Gln Thr Phe Gln Thr Glu Glu Lys Lys Cys Lys Gly Tyr
269          85          90          95

```

RAW SEQUENCE LISTING

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:40

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw

```

272 Ile Pro Ser Tyr Leu Asp Lys Asp Glu Leu Cys Val Val Cys Gly Asp
273           100           105           110
276 Lys Ala Thr Gly Tyr His Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys
277           115           120           125
280 Gly Phe Phe Arg Arg Thr Ile Gln Lys Asn Leu His Pro Ser Tyr Ser
281           130           135           140
284 Cys Lys Tyr Glu Gly Lys Cys Val Ile Asp Lys Val Thr Arg Asn Gln
285 145           150           155           160
288 Cys Gln Glu Cys Arg Phe Lys Lys Cys Ile Tyr Val Gly Met Ala Thr
289           165           170           175
292 Asp Leu Val Leu Asp Asp Ser Lys Arg Leu Ala Lys Arg Lys Leu Ile
293           180           185           190
296 Glu Glu Asn Arg Glu Lys Arg Arg Arg Glu Glu Leu Gln Lys Ser Ile
297           195           200           205
300 Gly His Lys Pro Glu Pro Thr Asp Glu Glu Trp Glu Leu Ile Lys Thr
301           210           215           220
304 Val Thr Glu Ala His Val Ala Thr Asn Ala Gln Gly Ser His Trp Lys
305 225           230           235           240
308 Gln Lys Pro Lys Phe Leu Pro Glu Asp Ile Gly Gln Ala Pro Ile Val
309           245           250           255
312 Asn Ala Pro Glu Gly Gly Lys Val Asp Leu Glu Ala Phe Ser His Phe
313           260           265           270
316 Thr Lys Ile Ile Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys
317           275           280           285
320 Lys Leu Pro Met Phe Cys Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu
321           290           295           300
324 Leu Lys Gly Cys Cys Met Glu Ile Met Ser Leu Arg Ala Ala Val Arg
325 305           310           315           320
328 Tyr Asp Pro Glu Ser Glu Thr Leu Thr Leu Asn Gly Glu Met Ala Val
329           325           330           335
332 Ile Arg Gly Gln Leu Lys Asn Gly Gly Leu Gly Val Val Ser Asp Ala
333           340           345           350
336 Ile Phe Asp Leu Gly Met Ser Leu Ser Ser Phe Asn Leu Asp Asp Thr
337           355           360           365
340 Glu Val Ala Leu Leu Gln Ala Val Leu Leu Met Ser Ser Asp Arg Pro
341           370           375           380
344 Gly Leu Ala Cys Val Glu Arg Ile Glu Lys Tyr Gln Asp Ser Phe Leu
345 385           390           395           400
348 Leu Ala Phe Glu His Tyr Ile Asn Tyr Arg Lys His His Val Thr His
349           405           410           415
352 Phe Trp Pro Lys Leu Leu Met Lys Val Thr Asp Leu Arg Met Ile Gly
353           420           425           430
356 Ala Cys His Ala Ser Arg Phe Leu His Met Lys Val Glu Cys Pro Thr
357           435           440           445
360 Glu Leu Leu Pro Pro Leu Phe Leu Glu Val Phe Glu Asp
361           450           455           460
364 <210> SEQ ID NO: 4
365 <211> LENGTH: 416
366 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:40

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw

367 <213> ORGANISM: Homo sapiens

369 <400> SEQUENCE: 4

```

371 Pro Asn Ser Asn His Val Ala Ser Gly Ala Gly Glu Ala Ala Ile Glu
372 1 5 10 15
375 Thr Gln Ser Ser Ser Ser Glu Glu Ile Val Pro Ser Pro Pro Ser Pro
376 20 25 30
379 Pro Pro Leu Pro Arg Ile Tyr Lys Pro Cys Phe Val Cys Gln Asp Lys
380 35 40 45
383 Ser Ser Gly Tyr His Tyr Gly Val Ser Ala Cys Glu Gly Cys Lys Gly
384 50 55 60
387 Phe Phe Arg Arg Ser Ile Gln Lys Asn Met Val Tyr Thr Cys His Arg
388 65 70 75 80
391 Asp Lys Asn Cys Ile Ile Asn Lys Val Thr Arg Asn Arg Cys Gln Tyr
392 85 90 95
395 Cys Arg Leu Gln Lys Cys Phe Glu Val Gly Met Ser Lys Glu Ser Val
396 100 105 110
399 Arg Asn Asp Arg Asn Lys Lys Lys Lys Glu Val Pro Lys Pro Glu Cys
400 115 120 125
403 Ser Glu Ser Tyr Thr Leu Thr Pro Glu Val Gly Glu Leu Ile Glu Lys
404 130 135 140
407 Val Arg Lys Ala His Gln Glu Thr Phe Pro Ala Leu Cys Gln Leu Gly
408 145 150 155 160
411 Lys Tyr Thr Thr Asn Asn Ser Ser Glu Gln Arg Val Ser Leu Asp Ile
412 165 170 175
415 Asp Leu Trp Asp Lys Phe Ser Glu Leu Ser Thr Lys Cys Ile Ile Lys
416 180 185 190
419 Thr Val Glu Phe Ala Lys Gln Leu Pro Gly Phe Thr Thr Leu Thr Ile
420 195 200 205
423 Ala Asp Gln Ile Thr Leu Leu Lys Ala Ala Cys Leu Asp Ile Leu Ile
424 210 215 220
427 Leu Arg Ile Cys Thr Arg Tyr Thr Pro Glu Gln Asp Thr Met Thr Phe
428 225 230 235 240
431 Ser Asp Gly Leu Thr Leu Asn Arg Thr Gln Met His Asn Ala Gly Phe
432 245 250 255
435 Gly Pro Leu Thr Asp Leu Val Phe Ala Phe Ala Asn Gln Leu Leu Pro
436 260 265 270
439 Leu Glu Met Asp Asp Ala Glu Thr Gly Ile Leu Ser Ala Ile Cys Leu
440 275 280 285
443 Ile Cys Gly Asp Arg Gln Asp Leu Glu Gln Pro Asp Arg Val Asp Met
444 290 295 300
447 Leu Gln Glu Pro Leu Leu Glu Ala Leu Lys Val Tyr Val Arg Lys Arg
448 305 310 315 320
451 Arg Pro Ser Arg Pro His Met Phe Pro Lys Met Leu Met Lys Ile Thr
452 325 330 335
455 Asp Leu Arg Ser Ile Ser Ala Lys Gly Ala Glu Arg Val Ile Thr Leu
456 340 345 350
459 Lys Met Glu Ile Pro Gly Ser Met Pro Pro Leu Ile Gln Glu Met Leu
460 355 360 365
463 Glu Asn Ser Glu Gly Leu Asp Thr Leu Ser Gly Gln Pro Gly Gly Gly

```

VERIFICATION SUMMARY

DATE: 09/13/2004

PATENT APPLICATION: US/10/827,121

TIME: 11:16:41

Input Set : A:\407J-981114US.ST25.txt

Output Set: N:\CRF4\09132004\J827121.raw